

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P735926

Luminaire Tested: S122RDRP-S675D835-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2024
Report Number: P735926
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/24/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S675D835-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

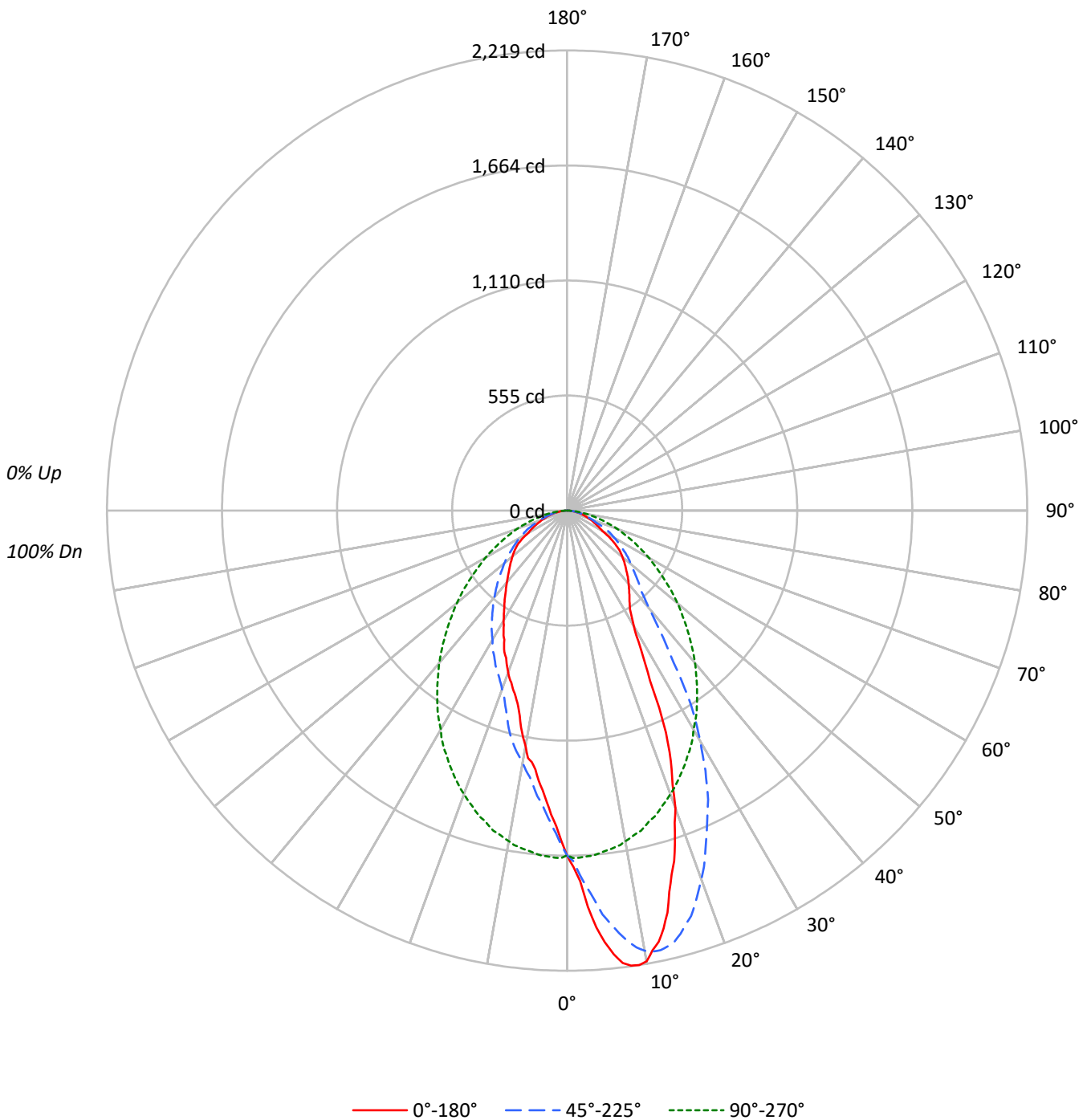
Lumens per Lamp: N/A
Luminaire Lumens: 2849.5 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.11 / 1
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P735926

CATALOG NUMBER: S122RDRP-S675D835-X4F0-XX-UDD-W-W

Luminous Intensity Polar Plot



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CATALOG NUMBER: S122RDRP-S675D835-X4F0-XX-UDD-W-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52					52			
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46					46			
7	71	58	50	45	69	57	50	45	56	49	44	55	49	44	53	48	44	42					42			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38					38			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35					35			
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32					32			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	26851	26851	26851	26851	26851
5°	33874	31686	26953	22901	21929
10°	36184	35331	26543	20264	18936
15°	31826	35320	25842	18170	15779
20°	26237	32508	25017	15773	14278
25°	18706	28540	24015	14608	12845
30°	11969	23938	22727	13405	11410
35°	10309	17641	21544	12437	10348
40°	9716	12899	20213	11508	9506
45°	9179	11051	18792	10663	8974
50°	8741	10073	17457	9922	8641
55°	8023	9317	15961	9120	8332
60°	6329	8493	14660	8557	7040
65°	5731	7603	13295	7946	6418
70°	5287	6137	12085	6845	5901
75°	4928	5552	10543	6114	5552
80°	4556	5021	8926	5486	5021
85°	4076	4446	6854	4817	4446

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 26304 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.3	5.7
10°-20°	433.4	15.2
20°-30°	543.6	19.1
30°-40°	518.0	18.2
40°-50°	456.9	16.0
50°-60°	359.4	12.6
60°-70°	229.4	8.0
70°-80°	116.6	4.1
80°-90°	30.9	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1138.3	39.9
0°-40°	1656.2	58.1
0°-60°	2472.6	86.8
0°-90°	2849.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2849.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1663	1663	1663	1663	1663	
5°	2090	1955	1663	1413	1353	203
15°	1904	2113	1546	1087	944	527
25°	1050	1602	1348	820	721	473
35°	523	895	1093	631	525	333
45°	402	484	823	467	393	312
55°	285	331	567	324	296	250
65°	150	199	348	208	168	150
75°	79	89	169	98	89	84
85°	22	24	37	26	24	25
90°	0	0	0	0	0	



TEST NUMBER: P735926

CATALOG NUMBER: S122RDRP-S675D835-X4F0-XX-UDD-W-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1663	1663	1663	1663	1663	1663	1663	1663	1663
1°	1719	1727	1690	1694	1676	1644	1613	1616	1594
2°	1788	1809	1758	1727	1675	1619	1557	1549	1522
3°	1913	1903	1819	1756	1671	1587	1509	1491	1468
4°	2014	1984	1881	1793	1669	1550	1462	1431	1408
5°	2090	2052	1955	1821	1663	1529	1413	1378	1353
6°	2151	2122	2003	1847	1655	1498	1384	1337	1311
7°	2198	2174	2052	1882	1648	1467	1338	1289	1258
8°	2216	2205	2097	1907	1640	1445	1297	1253	1225
9°	2219	2220	2133	1931	1633	1405	1268	1223	1208
10°	2207	2216	2155	1958	1619	1385	1236	1193	1155
11°	2160	2200	2166	1976	1607	1353	1208	1152	1114
12°	2125	2163	2167	1999	1593	1338	1184	1109	1069
13°	2067	2107	2157	2005	1585	1301	1154	1065	1016
14°	1998	2062	2141	2018	1565	1269	1124	1003	974
15°	1904	1995	2113	2023	1546	1247	1087	972	944
16°	1826	1929	2075	2023	1534	1217	1047	945	917
17°	1767	1851	2044	2024	1514	1196	1007	920	898
18°	1684	1778	1995	2020	1493	1171	973	899	872
19°	1592	1704	1943	2013	1475	1145	937	877	854
20°	1527	1630	1892	2002	1456	1128	918	852	831
21°	1418	1544	1841	1987	1436	1099	892	830	807
22.5°	1307	1423	1747	1962	1403	1063	863	803	769
23°	1264	1394	1718	1955	1392	1054	854	791	761
24°	1172	1307	1658	1933	1368	1024	837	767	746
25°	1050	1233	1602	1910	1348	1002	820	748	721
26°	912	1132	1551	1882	1320	972	797	730	692
27°	827	1045	1482	1852	1300	950	778	703	676
28°	759	908	1420	1823	1276	923	765	684	652
29°	685	833	1347	1784	1250	892	744	665	631
30°	642	753	1284	1755	1219	871	719	646	612
32.5°	564	621	1113	1672	1160	811	678	594	565
35°	523	553	895	1575	1093	761	631	551	525
37.5°	492	510	739	1471	1025	717	588	511	486
40°	461	475	612	1371	959	674	546	470	451
42.5°	433	444	531	1272	891	630	505	438	421
45°	402	412	484	1152	823	585	467	403	393
47.5°	376	383	439	1045	756	542	428	375	368
50°	348	357	401	926	695	500	395	350	344
52.5°	321	325	369	807	631	459	360	325	321
55°	285	301	331	685	567	421	324	299	296
57.5°	244	265	297	575	507	379	295	275	262
60°	196	221	263	478	454	341	265	234	218
62.5°	172	180	232	400	400	305	235	201	194
65°	150	156	199	331	348	265	208	174	168



TEST NUMBER: P735926

CATALOG NUMBER: S122RDRP-S675D835-X4F0-XX-UDD-W-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	131	136	152	276	300	231	172	152	145
70°	112	116	130	225	256	197	145	130	125
72.5°	95	99	107	169	210	164	122	111	107
75°	79	81	89	126	169	131	98	91	89
77.5°	64	65	70	90	131	100	79	73	72
80°	49	50	54	65	96	72	59	56	54
82.5°	35	36	38	44	65	49	42	41	38
85°	22	22	24	27	37	28	26	25	24
87.5°	10	10	11	11	17	12	12	11	10
90°	0	0	0	0	0	0	0	0	0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.87	19.34	18.23	19.65	19.96	20.56	22.03	20.93	22.34	22.66
	3H	18.98	20.30	19.36	20.63	20.99	22.00	23.32	22.38	23.64	24.01
	4H	19.43	20.66	19.83	21.01	21.39	22.50	23.74	22.91	24.08	24.46
	6H	19.77	20.90	20.18	21.27	21.66	22.83	23.97	23.24	24.34	24.73
	8H	19.88	20.96	20.31	21.35	21.76	22.92	24.00	23.35	24.39	24.79
	12H	19.96	20.99	20.39	21.37	21.80	22.97	24.00	23.40	24.38	24.81
4H	2H	19.04	20.27	19.44	20.62	21.00	21.01	22.25	21.42	22.60	22.97
	3H	20.26	21.28	20.67	21.68	22.08	22.67	23.69	23.08	24.09	24.49
	4H	20.74	21.66	21.18	22.08	22.52	23.31	24.23	23.74	24.64	25.08
	6H	21.14	21.94	21.60	22.38	22.85	23.77	24.56	24.22	25.01	25.47
	8H	21.28	22.02	21.74	22.47	22.94	23.89	24.64	24.36	25.08	25.55
	12H	21.38	22.04	21.86	22.52	22.99	23.97	24.64	24.46	25.12	25.59
8H	4H	21.14	21.89	21.61	22.33	22.80	23.42	24.17	23.89	24.61	25.08
	6H	21.64	22.25	22.13	22.74	23.22	23.99	24.60	24.48	25.09	25.57
	8H	21.83	22.37	22.34	22.89	23.38	24.18	24.73	24.70	25.25	25.73
	12H	21.98	22.47	22.49	22.96	23.53	24.33	24.82	24.84	25.31	25.88
12H	4H	21.19	21.85	21.67	22.33	22.81	23.41	24.08	23.90	24.56	25.03
	6H	21.71	22.26	22.22	22.77	23.26	23.98	24.53	24.50	25.04	25.53
	8H	21.95	22.43	22.46	22.93	23.49	24.23	24.71	24.74	25.21	25.77